

Crossed out

groove formed in a surface of said core intersecting each of said plurality of radially extending passages formed in said core for selectively communicating pressurized air to said surface of said core and an axially extending slot in an outer surface of said elongated core and an axially extending key extending from an inner surface of said elongated sleeve, said key being received in said slot for rotationally positioning said sleeve with respect to said core; [and]

wherein said sleeve is formed of an expandable material such that when pressurized air is passed to said surface of said core, said sleeve expands so as to be displaceable with respect to said core.

Claim 63, line 1, change "53" to --62--.

REMARKS

The Examiner's Action dated November 2, 1998 has been received and its contents carefully noted. In view thereof, claim 68 has been canceled and claims 1, 12, 33, 53 and 63 have been amended in order to better define that which Applicants regard as the invention. Accordingly, claims 1-12, 18-22, 25-30, 33-43, 59-63 and 69-72 are presently pending in the instant application with claims 22 and 25-30 being withdrawn from further consideration by the Examiner.

Referring now to the Examiner's Action, particularly page 2 thereof, Applicants acknowledge the Examiner's indication that Group I claims 1-12, 18-21, 33-43 49-63 and

68-72 have been elected without traverse for prosecution in the instant application. As noted hereinabove, claim 68 has since been canceled.

With respect to claim 68, this claim has been rejected under 35 U.S.C. §112, second paragraph for being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. As noted hereinabove, claim 68 has been canceled and consequently further discussion with respect thereto is no longer believed to be warranted.

Claims 1, 2, 8, 9, 12, 18, 19, 33, 34, 49, 50, 53, 54, 60, 63 and 68-72 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,731,620 issued to Klemmer in view of U.S. Patent No. 4,685,393 issued to Saueressig. This rejection is respectfully traversed in that the combination proposed by the Examiner neither discloses nor remotely suggests that which is presently set forth by Applicants' claimed invention.

In rejecting Applicants' claimed invention, the Examiner states that the patent to Klemmer teaches the very concept that is disclosed and claimed in the present application, that is, to use a releasably attached sleeve with engraved pattern thereon on an embossing roller core so as to facilitate the replacement of the engraved sleeve without having to remove the entire embossing roll from the machine. The Examiner does recognize that the Klemmer reference fails to disclose in detail how the embossing sleeve is releasably mounted on the roller core. In the absence of these teachings, the Examiner relies on the teachings of Saueressig. It is noted that the patent to Saueressig is related to a rotogravure cylinder

comprising a core and a shell detachably joined thereto with this assembly being utilized in a rotogravure printing process. In such a printing process, it is not critical to position the sleeve in a predetermined position with respect to the core. As can be seen from the foregoing amendments, each of independent claims 1, 33 and 53 have been amended to recite a positioning means for selectively positioning the sleeve with respect to the core with the positioning means including at least one actually extending bore, a plurality of readily extending passages a circumferential groove formed in a surface of the core interconnecting irregularly extending passages and an axially extending slot in an outer surface of the elongated core and an axially extending key extending from an inner surface of the elongated sleeve with the key being received in the slot for rotational positioning the sleeve with respect to the core. Clearly, such features are neither disclosed in nor remotely suggested by the combination set forth by the Examiner. As noted in Applicants' specification at page 18, in order to ensure that the embossing pattern is properly aligned with the mandrel, a slot 128 is provided in the tube 107 for receiving a key 130 of the sleeve 100. This is carried out such that the sleeve is properly registered with the mandrel such that when the embossing roll is run on a system using mated or matched embossing rolls, embossing rolls running point to point our nested, the embossing rolls as well as the embossed webs will properly register with one another. Clearly, there is no disclose nor remote suggestion of positioning the sleeve of either Klemmer or Saueressig in a predetermined position with respect to the core. Clearly, such is not of a concern in a rotogravure printing process nor is such a concern in

this system set forth by Klemmer. Accordingly, it is respectfully submitted that the proposed combination set forth by the Examiner neither discloses nor remotely suggests that which is presently set forth by Applicants' claimed invention in independent claims 1, 33 and 53 as well as those claims which depend therefrom.

Additionally, claims 20, 21, 51, 52, 71 and 72 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Klemmer in view of Saueressig as applied to claims 1, 33 and 53 above and further in view of U.S. Patent No. 4,144,813 issued to Julian. Again, this rejection is respectfully traversed in that the patent to Julian does nothing to overcome the aforementioned shortcomings associated with the prior art combination proposed by the Examiner. As with the Saueressig reference, the Julian reference is directed to a printing sleeve for use in a printing process which as noted hereinabove, is not concerned with the rotational positioning of the sleeve with respect to the core. Accordingly, it is respectfully submitted that the patent to Julian does nothing to overcome the aforementioned shortcomings associated with the combination proposed by the Examiner.

Further, claims 3-7, 35-40 and 55-59 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Klemmer in view of Saueressig as applied to claims 1, 33 and 53 above and further in view of U.S. Patent No. 5,266,257 issued to Kildune. Again this rejection is respectfully traversed in that the patent to Kildune does nothing to overcome the aforementioned shortcomings associated with the prior art combination proposed by the Examiner.

While the patent to Kildune in the paragraph bridging columns 1 and 2 may recite forming an embossing roll or core with a vulcanized rubber sleeve, this reference clearly fails to disclose replaceable sleeve for positioning in an embossing apparatus. That is, the paragraph referred to by the Examiner, the sleeve is drawn over a core roller after the core roller has been coated with an adhesion promoter and a silicon adhesive. The adhesive coating is then hardened and the composite roller is used as an embossing roller in a device for the continuous embossing of thermoplastic film. Clearly, this reference discloses nothing more than a conventional embossing roller. Moreover, as noted hereinabove, this reference clearly fails to disclose or remotely suggest a positioning means including an axially extending slot in an outer surface of the elongated core and an axially extending key extending from an inner surface of the elongated sleeve with the key being received in the slot for rotationally positioning the sleeve with respect to the core. Accordingly, it is respectfully submitted that the patent to Kildune does nothing to overcome the aforementioned shortcomings associated with the prior art combination proposed by the Examiner and consequently, it is respectfully submitted that Applicants' claimed invention as set forth in independent claims 1, 33 and 53 as well as those claims which depend therefrom clearly distinguishes over the prior art of record.

In addition to the foregoing, claims 10, 11, 41-43, 61 and 62 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Klemmer in view of Saueressig and Kildune as applied to claims 9, 40 and 60 hereinabove and further in view of U.S. Patent No.

3,404,254 issued to Jones. Again this rejection is respectfully traversed in that the patent to Jones fails to overcome the aforementioned shortcomings associated with the prior art combination proposed by the Examiner. In rejecting Applicants' claimed invention, the Examiner states that laser engraving on the surface of cylindrical rolls has long been known and used in the art for its ability to generate accurate and sharp images. While this may be the case, the patent to Jones clearly fails to overcome the aforementioned shortcomings associated with the prior art of record.

Additionally, the Examiner states that since the particular laser engraving technique on the embossing sleeve is not disclosed and claimed as part of the present invention, the various shapes of the embossing elements in the embossing pattern are considered as a design preference based on the embossed images desired to be obtained. Clearly, this is an erroneous observation on the part of the Examiner. As is discussed in detail in Applicants' specification on pages 19-22, it is preferred that a three dimensional laser engraving technique be carried out on the resilient surface so as to produce an embossing roll with embossing elements having curvilinear sidewalls, spherical surfaces and/or multiple elevations which form a product having sufficient embossed definition, softness, absorbency, strength, aesthetics and texture. Further, Figs. 6B and 7A-7F illustrate the particular advantages of the use of a three dimensional laser engraving system by us to form contour embossing elements having curvilinear sidewall, spherical surfaces as well as multiple elevations which are not possible utilizing conventional laser engraving processes set forth

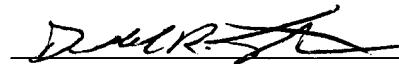
in the prior art. Accordingly, it is respectfully submitted while the Jones reference teaches a conventional use of laser engraving on cylindrical shaped rollers, this reference clearly fails to disclose or remotely suggest the use of a three dimensional laser engraving process. Further, this reference discloses an engraving process wherein elements of the type illustrated in Fig. 6A which illustrates elements which may be chamfered however, are generally angular and not curvilinear in that such configurations are impossible to create utilizing the conventional laser engraving system set forth by Jones. Consequently, it is respectfully submitted that Applicants' claimed invention as set forth in claims 11, 42, 43 and 61 clearly distinguish over the prior art of record for the reasons set forth hereinabove with respect to the combination of Klemmer in view of Saueressig as well as the discussion hereinabove with respect to the deficiencies of Jones.

Therefore, in view of the foregoing it is respectfully requested that the rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-12, 18-21, 33-43, 49-63 and 69-72 be allowed and that the application be passed to issue.

Docket No. 0286-1156

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is hereby invited to telephone council to arrange such a conference.

Respectfully submitted,


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